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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,923	03/20/2001	Takahiro Yamaguchi	KPO112	1850

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EXAMINER
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TRAN, KHANH C

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/813,923

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Khanh Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-12 and 14-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-12, 14-22, 24-27, 30-39 and 42-51 is/are allowed.
- 6) ☒ Claim(s) 28 and 40 is/are rejected.
- 7) ☒ Claim(s) 23, 29 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Amendment filed on 06/29/2005 has been entered. Claims 2-12 and 14-51 are pending in this Office action.

### ***Response to Arguments***

2. Applicant's arguments, see page 18 of the Remarks, filed on 06/29/2005, with respect to the rejection(s) of claim(s) 1 and 13 under 35 U.S.C 103(a) have been fully considered and are persuasive after Applicant cancels claims 1 and 13. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ravikanth U.S. Patent 6,327,274.

3. The objection of claims 6-7, 9, 15-16, and 21 has been withdrawn after claims are amended to correct the informalities.

### ***Claim Objections***

4. Claim 23 is objected to because of the following informalities: in line 2, "said step" should be changed to -- a step --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 28 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Ravikanth U.S. Patent 6,327,274.

Regarding claims 28 and 40, in column 7 line 44 through column 8 line 20, Ravikanth teaches a system for determining a clock skew between first and second clocks in a network comprising means for determining a clock skew between the first and second clocks based on the time stamps and the time measured by the second clock, wherein the clock skew determining means includes:

Means for computing a jitter between the time delay for the one packet and the time delay for a next packet consecutively transmitted after the one packet. The clock skew determining means further includes a first averager for averaging jitters after transmitting a plurality of packets. In light of the foregoing teachings, the recited means not only computes a jitter between the time delay for the one packet and the time delay for a next packet consecutively transmitted after the one packet, but also subsequent jitters for the plurality of transmitted packets.

Referring to column 8, lines 5-20, a second averager averages inter-packet times, each of the inter-packet times being a time interval between transmitting two consecutive of the plurality of packets, wherein the clock skew is determined by dividing an average of the jitters by an average of the inter-packet times. In light of the foregoing teachings, the clock skew values are obtained from the calculation of clock skew as recited above.

***Allowable Subject Matter***

6. Claims 2-3 and 6-12 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, claim 2 is allowed over prior art of record because the cited references cannot teach or suggest "a second clock skew estimator to which a plurality of the clock skew sequences are inputted for obtaining a difference between the plurality of clock skew sequence".

7. Claims 4 and 26-27 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, claim 4 is allowed over prior art of record because the cited references cannot teach or suggest "a frequency multiplier to which the timing jitter

sequence is inputted for multiplying a frequency of the timing jitter sequence to output the frequency-multiplied timing jitter sequence to said clock skew estimator".

8. Claims 5 and 30-33 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 5, claim 5 is allowed over prior art of record because the cited references cannot teach or suggest "a deterministic clock skew estimator for estimating a timing error between ideal clock edges of the plurality of clock signals under measurement to output a deterministic component of clock skew to said clock skew estimator, wherein said clock skew estimator is an estimator for adding the deterministic component of clock skew to the timing difference sequence to output the summed value as the clock skew sequence".

9. Claims 14-15, 18-22, and 24-25 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 14, claim 14 is allowed over prior art of record because the cited references cannot teach or suggest "a step of obtaining a difference between a plurality of the clock skew sequences to estimate a clock skew sequence".

10. Claims 16 and 38-39 are allowed.

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The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 16, claim 16 is allowed over prior art of record because the cited references cannot teach or suggest "a step of assigning each timing jitter of the timing jitter sequence M times to estimate a timing jitter sequence that is created by multiplying a frequency of the corresponding clock signal under measurement by (M+1)".

11. Claims 17 and 42-46 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 17, claim 17 is allowed over prior art of record because the cited references cannot teach or suggest "a step of estimating a timing error between ideal clock edges of the plurality of clock signals under measurement to estimate a deterministic component of clock skew, wherein said step of calculating a timing difference sequence is a step of adding the deterministic component of clock skew to the timing difference sequence to obtain the summed value as the clock skew sequence".

12. Claims 29 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 34-37 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 34, claim 34 is allowed over prior art of record because the cited references cannot teach or suggest an apparatus for measuring a clock skew between a plurality of clock signals under measurement as set forth the application claim.

14. Claims 47-51 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 47, claim 47 is allowed over prior art of record because the cited references cannot teach or suggest a method of measuring a clock skew between a plurality of clock signals under measurement as set forth the application claim.

### ***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Khanh Cong Tran  
Examiner KHANH

09/16/2005  
TRAN